

Appendix 11 – Glossary and Acronyms

Agency/Area Coordination Center: A facility which serves as a central point for one or more agencies to use in processing information and resource requests. It may also serve as a dispatch center for one of the agencies.

Agency Administrator: Managing officer of an agency, division thereof, or jurisdiction having statutory responsibility for incident mitigation and management. Examples: NPS Park Superintendent, BIA Agency Superintendent, USFS Forest Supervisor, BLM District Manager, FWS Refuge Manager, State Forest Officer, Fire Chief, Police Chief.

Air attack: The deployment of fixed-wing or rotary aircraft on a wildland fire, to drop retardant or extinguishing agents, shuttle and deploy crews and supplies, or perform aerial reconnaissance of the overall fire situation.

Air tanker: Fixed-wing aircraft certified by FAA as being capable of transport and delivery of fire retardant solutions.

Area ignition: Ignition of several individual fires throughout an area, either simultaneously or in rapid succession, and so spaced that they add to and influence the main body of the fire to produce a hot, fast-spreading fire condition. Also called simultaneous ignition.

Blow up: Sudden increase in fireline intensity or rate of spread of a fire sufficient to preclude direct control or to upset existing suppression plans. Often accompanied by violent convection and may have other characteristics of a fire storm.

Branch: The organizational level having functional or geographical responsibility for major parts of incident operations. The branch level is organizationally between section and division/group in the operations section, and between section and unit in the logistics section. Branches are identified by roman numerals or by functional name (e.g. service, support).

Burnout: Setting fire inside a control line to consume fuel between the edge of the fire and the control line.

Burnover: A situation where personnel or equipment is caught in an advancing flame front.

California Interagency Historical Fire Perimeter Database: CAL FIRE/FRAP, the USDA Forest Service Region 5 Remote Sensing Lab, the Bureau of Land Management, and the National Park Service are jointly developing the comprehensive fire perimeter GIS layer for public and private lands throughout California.

Chain: Unit of measure in land survey, equal to 66 feet (20 M) (80 chains equal 1 mile). Commonly used to report fire perimeters and other fireline distances, this unit is popular in fire management because of its convenience in calculating acreage (e.g., 10 square chains equal one acre).

Check-in: The process whereby resources first report to an incident. Check-in locations include incident command post (ICP), base or camps, staging areas, helibases, or direct to a tactical assignment.

Chief: The ICS title for individuals responsible for command of functional sections: Operations, Planning, Logistics, and Finance/Administration.

Cooperative Fire Protection Agreement: an agreement between the Bureau of Land Management; National Park Service; U.S. Forest Service, and California Department of Forestry and Fire Protection – version 7/25/01

Dead Fuels: Fuels with no living tissue in which moisture content is governed almost entirely by absorption or evaporation of atmospheric moisture (relative humidity and precipitation).

Delegation of Authority: A statement provided to the incident commander by the agency executive delegating authority and assigning responsibility. The delegation of authority can include objectives, priorities, expectations, constraints and other considerations or guidelines as needed. Many agencies require written delegation of authority to be given to incident commanders prior to their assuming command on larger incidents.

Direct Protection Area: That area for which a particular fire protection organization has the primary responsibility for attacking an uncontrolled fire and for directing the suppression action. Such responsibility may develop through law, contract, or personal interest of the firefighting agent (e.g., a lumber operator). Several agencies or entities may have some basic responsibilities (e.g., private owner) without being known as the fire organization having direct protection responsibility.

Director: The ICS title for an individual responsible for supervision of a branch.

Division: The ICS organization level between the branch and the task force/strike team. Divisions are used to divide an incident into geographical areas of operation. Divisions are established when the number of resources exceeds the span-of-control of the operations chief.

Division/Group Supervisor: The ICS position responsible for supervising equipment and personnel assigned to a division or group. Reports to a Branch Director or Operations Section Chief.

[fire] Eddy Effect: A circular-like flow of a fluid (such as air or water) drawing its energy from a flow of much larger scale, and brought about by pressure irregularities as in the downwind (lee) side of a solid obstacle. For example, wind conditions may be erratic and may eddy on the downwind side of large rock outcroppings, buildings, etc.

Energy Release Component: The computed total heat release per unit area (British thermal units per square foot) within the flaming front at the head of a moving fire.

Entrapment: A situation where personnel are unexpectedly caught in a fire behavior-related, life-threatening position where planned escape routes or safety zones are absent, inadequate, or compromised. An entrapment may or may not include deployment of a fire shelter for its intended purpose. These situations may or may not result in injury. They include "near misses."

Escape Route: A preplanned and understood route firefighters take to move to a safety zone or other low-risk area. When escape routes deviate from a defined physical path, they should be clearly marked (flagged).

Extended Attack: Suppression activity for a wildfire that has not been contained or controlled by initial attack or contingency forces and for which more firefighting resources are arriving, en route, or being ordered by the initial attack incident commander.

Extended Attack Incident: A wildland fire that has not been contained or controlled by initial attack forces and for which more firefighting resources are arriving, en route, or being ordered by the initial attack incident commander. Extended attack implies that the complexity level of the incident will increase beyond the capabilities of initial attack incident command.

Extreme Fire Behavior: "Extreme" implies a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

Fire: Rapid oxidation, usually with the evolution of heat and light; heat fuel, oxygen and interaction of the three.

Fire Behavior: The manner in which a fire reacts to the influences of fuel, weather, and topography.

Fire Behavior Prediction System: A system that uses a set of mathematical equations to predict certain aspects of fire behavior in wildland fuels when provided with data on fuel and environmental conditions.

Firebrand: Any source of heat, natural or human made, capable of igniting wildland fuels. Flaming or glowing fuel particles that can be carried naturally by wind, convection currents, or by gravity into unburned fuels.

Fire Engine: see Wildland Fire Engine

Fire Environment: The surrounding conditions, influences, and modifying forces of topography, fuel, and weather that determine fire behavior.

Firefighting Forces: Qualified firefighters, together with their equipment and material, used to suppress wildland fires.

Fire Frequency: A general term referring to the recurrence of fire in a given area over time.

Fire Front: The part of a fire within which continuous flaming combustion is taking place. Unless otherwise specified, the fire front is assumed to be the leading edge of the fire perimeter. In ground fires, the fire front may be mainly smoldering combustion.

Fire Interval: The number of years between two successive fire events for a given area; also referred to as fire-free interval or fire-return interval.

Fire Pack: A one-person unit of fire tools, equipment, and supplies prepared in advance for carrying on the back.

Fire Progression: The progress of the fire outwards from the point of origin.

Fire Qualifications: Computerized interagency summary of fire suppression qualifications of listed personnel. Available information includes fire training record, fire experience record, and physical fitness testing score for each individual.

Fire Resources: All personnel and equipment available or potentially available for assignment to incidents.

Firefighting Resources: see Fire Resources

Fire Shelter: An aluminized tent offering protection by means of reflecting radiant heat and providing a volume of breathable air in a fire entrapment situation. Fire shelters should only be used in life threatening situations, as a last resort.

Fire Shelter Deployment: The removing of a fire shelter from its case and using it as protection against fire.

Fire Weather: Weather conditions which influence fire ignition, behavior, and suppression.

Fire Weather Forecast: A weather prediction specially prepared for use in wildland fire operations and prescribed fire.

Fire Weather Watch: A Fire Weather Watch is issued to advise of conditions which could result in extensive wildland fire occurrence or extreme fire behavior, which are expected to develop in the next 12 to 48 hours, but not more than 72 hours. In cases of dry lightning, a Fire Weather Watch may be issued for the next 12 hours. Also see Red Flag Warning

Flame Height: The average maximum vertical extension of flames at the leading edge of the fire front. Occasional flashes that rise above the general level of flames are not considered. This distance is less than the flame length if flames are tilted due to wind or slope.

Flame Length: The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface), an indicator of fire intensity.

Foehn Wind: A warm, dry and strong general wind that flows down into the valleys when stable, high pressure air is forced across and then down the lee slopes of a mountain range. The descending air is warmed and dried due to adiabatic compression producing critical fire weather conditions. Locally called by various names such as Santa Ana winds, Devil winds, North winds, Mono winds, etc.

Forest Net Radio Channel: a station radio system already in place at the Cabazon Fire Station

FRAP: The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP). Assesses the amount and extent of California's forests and rangelands, analyzes their conditions and identifies alternative management and policy guidelines.

Fuel: Any combustible material, especially petroleum-based products and wildland fuels.

Fuel Class: Part of the National Fire Danger Rating System (NFDRS). Group of fuels possessing common characteristics. Dead fuels are grouped according to 1-, 10-, 100-, and 1000-hour timelag, and living fuels are grouped as herbaceous (annual or perennial) or woody.

Fuel Loading: The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area. This may be available fuel (consumable fuel) or total fuel and is usually dry weight.

Fuel Model: Simulated fuel complex for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.

Fuel Moisture Content: The quantity of moisture in fuel expressed as a percentage of the weight when thoroughly dried at 212 degrees F.

Fuel Size Class: A category used to describe the diameter of down dead woody fuels. Fuels within the same size class are assumed to have similar wetting and drying properties, and to preheat and ignite at similar rates during the combustion process.

General Fire Weather Forecast: A forecast, issued daily during the regular fire season to resource management agencies, that is intended for planning of daily fire management activities, including daily staffing levels, prevention programs, and initial attack on wildfires. Also called presuppression forecast.

Geographic Area Coordination Center: The physical location of an interagency, regional operation center for the effective coordination, mobilization and demobilization of emergency management resources. Listings of geographic coordination centers and their respective geographic coordinating areas can be found within the National Interagency Mobilization Guide, Chapter 20, Section 21.1

Head Fire: A fire spreading or set to spread with the wind.

Holding actions: All actions taken to stop the spread of fire.

Incident Commander: This ICS position is responsible for overall management of the incident and reports to the Agency Administrator for the agency having incident jurisdiction. This position may have one or more deputies assigned from the same agency or from an assisting agency(s).

Incident Command Post: Location at which primary command functions are executed. The ICP may be collocated with the incident base or other incident facilities.

Incident Command System: A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

Incident Management Team: The incident commander and appropriate general and command staff personnel assigned to an incident.

Initial attack: A planned response to a wildfire given the wildfire's potential fire behavior. The objective of initial attack is to stop the spread of the fire and put it out at least cost. An aggressive suppression action consistent with firefighter and public safety and values to be protected.

Inversion: Atmospheric inversion. The departure from the usual increase or decrease with altitude of the value of an atmospheric property. In fire management usage, nearly always refers to an increase in temperature with increasing height. Also, the layer through which this departure occurs (also called inversion layer). The lowest altitude at which the departure is found is called the base of the inversion.

I-Zone: An area that, in relation to wildland/urban fire, has a set of conditions that provides the opportunity for fire to burn from wildland vegetation to the home/structure ignition zone.

Jurisdiction: The range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, state or federal boundary lines), or functional (e.g., police department, health department, etc.).

Line Pack: see Fire Pack

Live Fuel Moisture Content: Ratio of the amount of water to the amount of dry plant material in living plants.

Live Fuels: Living plants, such as trees, grasses, and shrubs, in which the seasonal moisture content cycle is controlled largely by internal physiological mechanisms, rather than by external weather influences.

Lookout: (1) A person designated to detect and report fires from a vantage point; (2) A location from which fires can be detected and reported; (3) A fire crew member assigned to observe the fire and warn the crew when there is danger of becoming trapped.

Lookout(s), Communication(s), Escape Route(s), and Safety Zone(s) (LCES): Elements of a safety system used by fire fighters to routinely assess their current situation with respect to wildland firefighting hazards.

Management Action Points: Geographic points on the ground or specific points in time where an escalation or alternative of management actions is warranted. These points are defined and the management actions to be taken are clearly described in an approved Wildland Fire Implementation Plan (WFIP) or Prescribed Fire Plan. Timely implementation of the actions when the fire reaches the action point is generally critical to successful accomplishment of the objectives. Also called Trigger Points.

MAST: The Riverside County Mountain Area Safety Taskforce (MAST), San Jacinto Mountains Community, Wildfire Protection Plan – Draft Final (March 2006)

Mean Sea Level (MSL): Average height of the surface of the sea for all stages of the tide over a 19-year period. NOTE: when the abbreviation MSL is used in conjunction with a number of feet, it implies altitude above sea level (e.g., 1000 feet MSL).

Nomex ®: Trade name for a fire resistant synthetic material used in the manufacturing of flight suits and pants and shirts used by firefighters. Aramid is the generic name.

Operations Section: The section responsible for all tactical operations at the incident. Includes branches, divisions and/or groups, task forces, strike teams, single resources and staging areas.

Operations Section Chief: This ICS position is responsible for supervising the Operations Section. Reports to the Incident Commander and is a member of the General Staff. This position may have one or more deputies assigned.

Personal Protective Equipment: That equipment and clothing required to mitigate the risk of injury from or exposure to hazardous conditions encountered during the performance of duty. PPE includes but is not limited to: fire resistant clothing, hard hat, flight helmets, shroud, goggles, gloves, respirators, hearing protection, chainsaw chaps, and shelter.

Pre-ignition combustion phase: Thermal or chemical decomposition of fuel at an elevated temperature. This is the pre-combustion stage of burning during which distillation and pyrolysis predominate. Heat energy is absorbed by the fuel which, in turn, gives off water vapor and flammable tars, pitches, and gases. These ignite when mixed with oxygen to initiate the flaming combustion phase.

Probability of Ignition: The chance that a firebrand will cause an ignition when it lands on receptive fuels.

Pyrolysis: The thermal or chemical decomposition of fuel at an elevated temperature. This is the Pre-ignition combustion phase of burning during which heat energy is absorbed by the fuel which, in turn, gives off flammable tars, pitches, and gases.

Rate of spread: The relative activity of a fire in extending its horizontal dimensions. It is expressed as rate of increase of the total perimeter of the fire, as rate of forward spread of the fire front, or as rate of increase in area, depending on the intended use of the information. Usually it is expressed in chains or acres per hour for a specific period in the fire's history.

Red Flag Warning: Term used by fire weather forecasters to alert forecast users to an ongoing or imminent critical fire weather pattern – normally to occur within 24 hours.

Relative Humidity: The ratio of the amount of moisture in the air, to the maximum amount of moisture that air would contain if it were saturated. The ratio of the actual vapor pressure to the saturated vapor pressure.

Remote Automatic Weather Station: A GEOS telemetered weather station that transmits hourly observations 24 times per day. These observations are automatically delivered through ASCADS to WIMS.

Run (Of a Fire): Rapid advance of the head of a fire, characterized by a marked transition in fireline intensity and rate of spread with respect to that noted before and after the advance.

Safety Zone: An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuelbreaks; they are greatly enlarged areas which can be used with relative safety by firefighters and their equipment in the event of blowup in the vicinity.

Santa Ana Wind: see Foehn Wind

Self-Contained Breathing Apparatus (SCBA): Portable air (not oxygen) tanks with regulators which allow firefighters to breathe while in toxic smoke conditions. Usually rated for 30 minutes of service. Used primarily on fires involving structures or hazardous materials.

Situational awareness (SA): The perception of what the fire is doing and what you are doing in relation to the fire and your goals. It involves an awareness of fire behavior and terrain and the ability to predict where the fire and you will be in the future. This skill depends both on individual perception and sharing it with the rest of the team. Human Factors Workshop - 1995 part 2. SA is knowing and understanding what is going on around you and predicting how things will change, or, in other words, "being coupled to the dynamics of your environment" (Moray, 2004). In the simplest form, SA describes how well someone's perception matches reality. On the fireline, especially under extreme conditions, it's critical for perceptions of the changing fire potential to reflect what's actually happening (Close, 2005). "Mindfulness" is one way of understanding situational awareness – "...coming to an understanding of yourself and your environment, maintaining an on-going scrutiny of expectations, continuous refinement and differentiation of expectations based on newer experiences, and a willingness and capacity to invent new expectations" (Weick and Sutcliffe, 2001).

Single resource: An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

Sounding (Upper Air Sounding): A sampling of upper air conditions made by means of instruments and a small radio transmitter on a free balloon. Automatic radio signals originated by action of weather instruments are sent to a ground receiver. These signals are interpreted for use in analyzing and predicting upper air conditions over a wide area of the earth. Weather elements determined at a number of altitude points as the balloon rises are temperature, atmospheric moisture, pressure, wind direction and speed. Similar soundings may be made using fixed balloons or tether sondes.

Span of Control: The supervisory ratio of from three-to-seven individuals, with five-to-one being established as optimum.

Spot Fire: Fire ignited outside the perimeter of the main fire by a firebrand.

Spot Weather Forecast: A special forecast issued to fit the time, topography, and weather of a specific incident. These forecasts are issued upon request of the user agency and are more detailed, timely, and specific than zone forecasts. Usually, on-site weather observations or a close, representative observation is required for a forecast to be issued.

Spotting: Behavior of a fire producing sparks or embers that are carried by the wind and which start new fires beyond the zone of direct ignition by the main fire.

Staging Area: Locations set up at an incident where resources can be placed while awaiting a tactical assignment on a three (3) minute available basis. Staging Areas are managed by the Operations Section.

Strike Team: Specified combinations of the same kind and type of resources, with common communications, and a leader.

Strike Team Leader: The ICS position responsible for supervising a strike team. Reports to a Division/Group Supervisor or Operations Section Chief. This position may supervise a strike team of engines (STEN), crews (STCR), dozers (STDZ), or tractor/plows (STPL).

Structural Fire Protection: The protection of homes or other structures from wildland fire.

Structural Triage: Process of inspecting and classifying structures according to their defensibility/indensifiability based on their situation, their construction, and the immediately adjacent fuels.

Supervisor: The ICS title for individuals responsible for command of a division or group.

Suppression: All the work of extinguishing or confining a fire beginning with its discovery.

Synoptic: Literally, at one time. Thus, in meteorological usage, the weather conditions over a large area at a given point in time.

Synoptic Chart: In meteorology, any chart or map on which data and analyses are presented that describe the state of the atmosphere over a large area at a given moment in time.

Task Force: Any combination of single resources assembled for a particular tactical need, with common communications and a leader. A Task Force may be pre-established and sent to an incident, or formed at an incident.

Task Force Leader (TFLD): The ICS position responsible for supervising a task force. Reports to a Division/Group Supervisor or Operations Section Chief.

Technical Specialists: Personnel with special skills that can be used anywhere within the ICS organization. These personnel may perform the same duties during an incident that they perform in their everyday job.

Triage: see Structure Triage

Trigger Points: see Management Action Points

Type III Fire Engine: A wildland fire engine that has a 500 gallon capacity, has a 500 at 150 psi (pounds per square inch) gallons per minute capability, and is able to transport a minimum of 3 crew members.

Type II helicopter specification listed in the Interagency Helicopter Operations Guide - March 2006: *Allowable Payload at 59° Fahrenheit at Sea Level: 2500; Passenger Seats: 9 to 14; Retardant or Water Carrying Capability (Gallons): 300; Maximum Gross Takeoff/Landing Weight (Lbs): 6,000 -12,500*

Type III Helicopter specification listed in the Interagency Helicopter Operations Guide - March 2006 : *Allowable Payload at 59° Fahrenheit at Sea Level: 1200; Passenger Seats: 4 to 8; Retardant or Water Carrying Capability (Gallons): 100; Maximum Gross Takeoff/Landing Weight (Lbs): up to 6,000*

“Unnamed creek drainage”: Is aligned northeast to southwest below the accident site. It is 1.5 miles long and is approximately ¼ mile wide with average slope at 25 percent. The run of the slope is at average of 50 percent. The United States Geological Survey Map, USDA Forest Service, Cabazon Quadrangle California-Riverside County, 7.5-Minute Series and site visit was used to describe the topographic features of the accident site.

Unified Command: In ICS, unified command is a unified team effort which allows all agencies with jurisdictional responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies. This is accomplished without losing or abdicating authority, responsibility, or accountability.

Upper Air Sounding: see Sounding

Weather Information Management System (WIMS): A centralized weather data processing system at which daily fire danger ratings are produced.

Wildland: An area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities. Structures, if any, are widely scattered.

Wildland Fire Engine: A unique vehicle that is specifically designed for the wildland environment. These fire engines are equipped with four wheel drive, rugged suspension and high wheel clearance for mountainous dirt road conditions. Fire engines are placed into category types that are used in the Incident Command System.

Wildland Fire: Any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

Wildfire Suppression: An appropriate management response to wildfire, escaped wildland fire use or prescribed fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

Wildland Urban Interface (WUI): The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Weather Information Management System (WIMS): A centralized weather data processing system at which daily fire danger ratings are produced.

Work/Rest Ratio: An expression of the amount of rest that is required for each hour an individual is in work status. Current NWCG guidelines require one hour of rest for every two hours in work status.

Acronyms

BC	Battalion Chief
BDF	San Bernardino National Forest
BLM	Bureau of Land Management
CAL FIRE	California Department of Forestry and Fire Protection
CDF	California Department of Forestry and Fire Protection
CFPA	Cooperative Fire Protection Agreement
CH/HR	Chains per hour
DC	Division Chief
DW	Doublewide
DPA	Direct Fire Protection Area
ECC	Emergency Command Center
ERC	Energy Release Component
FBAN	Fire Behavior
FICC	Federal Interagency Communications Center
FRAP	CAL FIRE's Fire Resource Assessment Program
FW&S	Fish & Wildlife Services
GACC	Geographic Area Coordination Center
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
I – Zone	Interface zone same as Wildland Urban Interface
IMT	Incident Management Team
MAST	Mountain Area Safety Taskforce
MB-10	March Air Force Base – Brush 10 Fire Engine
MPH	Miles per Hour
MSL	Mean Sea Level
NPS	National Park Service
NWSFO	National Weather Service Forecast Office
NWS	National Weather Service
OIG	Office of Inspector General
OSHA	Federal Occupational Safety and Health Administration
PDT	Pacific Daylight Time
PPE	Personal Protective Equipment
RAWS	Remote Automatic Weather Station
RH	Relative Humidity
RFW	Red flag warning
ROS	Rate of Spread
RRU	CAL FIRE Riverside Unit
RUC	Rapid Update Cycle
RVC	Riverside County
SAIT	Serious Accident Investigation Team
SCBA	Self Contained Breathing Apparatus
South Ops	California Southern Operations Center

RAWS	Remote Automated Weather System
TH	Tile House
USFS	United States Forest Service
WIMS	Weather Information Management System